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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,795	08/18/2000	James M. Zavislan	ML-0459C	6913

24902 7590 03/28/2002

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EXAMINER

PHAM, HOA Q

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 03/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,795

Applicant(s)

ZAVISLAN, JAMES M.

Examiner

Hoa Q. Pham

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 29-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/11/02 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 29-38 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Koester (4,241,257).

Regarding claims 29, 32-33, 34, and 37-38; Koester teaches that the scanning microscopic apparatus (figures 1 and 4) can be modified to a differential interference microscopy by inserting a polarizer and a Wollaston prism between the mirror M1 and objective lens L3 (column 11 lines 31-34).

Regarding claims 30 and 35, since the polarizer and Wollaston prism are located between the objective lens L3 and Mirror M1, it is inherent that the beams are overlapping in the medium outside the imaged section.

Regarding claims 31 and 36, Koester uses a Wollaston prism which is the same as the present invention used, thus the beams are incident the medium at spots spaced in at least one direction along the image plane (20).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koester.

Koester does not teach the use of reference arm and a sample arm; however, the examiner take the Official notice that such a feature is well known in the art. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the system of Koester a reference arms. The rationale for this modification would have arisen from the fact that such reference arm would be useful for the purpose of controlling the intensity of the light source at a constant level, thus an accuracy of the examination is obtained.

6. Claims 29-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barenboim et al (5,699,160) or Bou-Grannam et al (5,710,631) or Ooki et al (5,764,363) or Smith (3,958,884) in view of Koester.

Regarding claims 29-38, Barenboim et al, Bou-Grannam et al, Ooki et al, and Smith (all of record) disclose an optical inspection apparatus for observing a surface, which has all the features of the present invention except that the image plane is inside the medium (biological tissue). However, such a feature is known in the art as taught by Koester. Koester teaches that the examination device could be used to examine biological specimens in which the image plane (20) is within the volume of the specimen (21) (figure 1). Those of ordinary skill in the art at the time the invention was made to use the basic device of Barenboim et al, Bou-Grannam et al, Ooki et al, or Smith for observing inside of a medium as taught by Koester because the device would function in the same manner.

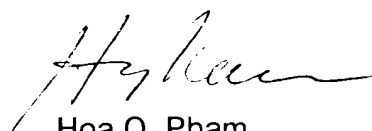
Regarding Claims 39-42, Barenboim et al, Bou-Grannam et al, Ooki et al, and Smith do not teach the use of reference arm and a sample arm; however, the examiner take the Official notice that such a feature is well known in the field of interferometry. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the system of Ooki et al, Smith, Bou-Ghannam et al, or Barenboim et al. The rationale for this modification would have arisen from the fact that such reference arm would be useful for the purpose of controlling the intensity of the light source at a constant level, thus an accuracy of the examination is obtained.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zavislan (6,304,373) discloses an image system using multi-mode laser illumination to enhance image quality and Baer (3,705,755) discloses a microscopy apparatus.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (703) 308-4808. The examiner can normally be reached on 6:30 AM to 5 PM Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Hoa Q. Pham
Primary Examiner
Art Unit 2877

Pham/hp
March 23, 2002